SANGAMO WESTON, INC./TWELVE-MILE CREEK/LAKE HARTWELL PCB CONTAMINATION
PICKENS, SC

Cleanup Activities

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Background

The Sangamo Weston, Inc./Twelve-Mile Creek/Lake Hartwell PCB Contamination Superfund site is located in Pickens, South Carolina. Residential land uses and undeveloped land surround the site. As a result of a merger, Sangamo Weston, Inc. became Schlumberger Technology Corporation. In 1999, Schlumberger Technology Corporation donated part of the site property to the City of Pickens.

From 1955 until 1987, Sangamo Weston, Inc. operated a capacitor manufacturing plant at the site. Operations disposed of wastes at six areas near the plant and discharged wastewater into Town Creek, a tributary of Twelve Mile Creek which is a major tributary of Lake Hartwell.

The U.S. Environmental Protection Agency placed the site on the National Priorities List (NPL) in 1990 because of contaminated debris, groundwater, sediment, sludge, soil and fish tissue resulting from facility operations.

EPA, the South Carolina Department of Health and Environmental Control (SCDHEC) and Schlumberger Technology Corporation, the site's potentially responsible party (PRP), have investigated site conditions. By treating and monitoring groundwater and undertaking Five-Year Reviews, EPA, SCDHEC and the site's PRP continue to protect people and the environment from site contamination.

Following cleanup activities, the EPA deleted portions of the site from the NPL. The locality redeveloped the area into a public recreation complex. The Plant site has been cleaned up to future industrial land-uses; while the satellite sites have been cleaned up to future residential land-uses.

Site contamination does not currently threaten people living and working near the site. A water line connects residences and businesses to the public water supply.

What Has Been Done to Clean Up the Site?

Schlumberger Technology Corporation, the site's PRP, led site investigation and cleanup activities, with oversight provided by EPA and SCDHEC.

Site investigations and cleanup activities have focused on two areas, which EPA refers to as operable units, or OUs. These areas include

- OU-1: the land-based contamination at the plant and six disposal areas
- OU-2: the lake and river areas downstream, including a section of Twelve-Mile Creek and a portion of Lake Hartwell.

1990
EPA issued the cleanup plan (a Record of Decision, or ROD) for OU-1. It included

- digging up and treating contaminated soil by using low-level heat to pull contamination from soil
- treating contaminated groundwater beneath the plant and one of the six disposal areas.

1993 – 1997
The site's PRP dug up and treated about 60,000 tons of contaminated sediment, soil and sludge. The PRP placed treated soil back on the plant area, capped the area with top soil and regraded the area.

1994
The PRP began annual monitoring of sediments and fish tissue.

EPA issued the cleanup plan (ROD) for OU-2. It included

- using monitored natural attenuation to address groundwater contamination

- naturally capping contaminated sediments by the continued deposition of clean sediment entering Lake Hartwell
- monitoring fish tissue and sediment
- adopting fish consumption guidelines
- implementing a fish advisory public education/awareness program.

1997
The PRP began groundwater treatment at one of the six disposal areas and operated the treatment system for about 10 years. The treatment system recovered 118 million gallons of groundwater and removed 86 pounds of contamination.

1998
Treatment of groundwater at the plant began. The system has recovered 225 million gallons of groundwater and removed 1,630 pounds of volatile organic compounds (VOCs) and 18 pounds of polychlorinated biphenyls (PCBs).

A public education program began to educate users of Lake Hartwell about current fish consumption advisories at the lake.

2009
As of 2009, 79 new fish advisory signs have been posted.

EPA updated the remedy to address groundwater contamination through the use of chemicals called oxidants to break down contaminants.

A second remedy update in 2009 incorporated activities required to remove the Woodside 1 and Woodside 2 dams as part of the OU-2 cleanup plan.

2011
EPA began a supplemental site investigation to identify the location and amount of residual sediment deposits, determine the concentration of PCBs in those deposits, and conduct a risk assessment.

What Is the Current Site Status?

The forth Five Year Review was published by EPA HA in 2020. The Sitewide Protectiveness Status is protective of human health and the environment.

Activity and Use Limitations

At this site, activity and use limitations that EPA calls institutional controls are in place. Institutional controls play an important role in site remedies because they reduce exposure to contamination by limiting land or resource use. They also guide human behavior. For instance, zoning restrictions prevent land uses – such as residential uses – that are not consistent with the level of cleanup.

For more background, see Institutional Controls.

Cleanup activities included removal and treatment of soil and groundwater; groundwater, fish tissue and sediment monitoring; fish consumption guidelines; and a fish advisory public education and awareness program. Fish advisories remain in effect for fish caught from Lake Hartwell and Twelve-Mile Creek.

In 1998, a public education program began to educate users of Lake Hartwell about current fish consumption advisories at the lake. As of 2009, 79 new fish advisory signs have been posted.

Sampling and Monitoring

In 1998, a public education program began to educate users of Lake Hartwell about current fish consumption advisories at the lake. As of 2009, 79 new fish advisory signs have been posted. The PRP continues to conduct annual monitoring of sediments and fish tissue.

Enforcement Information

Enforcing environmental laws is a central part of EPA's mission to protect human health and the environment. When warranted, EPA will take civil or criminal enforcement action against violators of environmental laws.

EPA negotiated legal agreements with the site PRP to investigate and clean up the site. The PRP continues to fund monitoring and oversight activities.

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